

Name: Key

Period: _____ Table: _____

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Section A - Multiple Choice [0.5 point each]

Choose the best answer from the list and write the corresponding letter in the space provided.

1. C Acids taste:
a) bitter b) salty c) sour d) sweet
2. D Bases feel:
a) rough b) dry c) moist d) slippery
3. A Bases make Litmus Paper turn:
a) blue b) red c) purple d) yellow
4. B An acid/base titration is carried-out by monitoring the
a) temperature b) pH c) density d) pressure
5. D When performing an acid/base titration, the long glass tube that measured the volume is called:
a) graduated cylinder b) pipet c) Erlenmeyer flask d) buret
6. B A substance that ionizes nearly completely in an aqueous solution and produces H^+ is:
a) a strong base b) a strong acid c) a weak base d) a weak acid
7. A A substance that ionizes nearly completely in an aqueous solution and produces H^+ is:
a) a strong electrolyte that will produce a bright light when electricity is passed through it.
b) a weak electrolyte that will produce a dull light when electricity is passed through it.
c) a non-electrolyte that will produce no light when electricity is passed through it.
8. D A strong base is:
a) also a strong acid b) a non-electrolyte c) a weak electrolyte d) a strong electrolyte
9. A A sugar solution would be an example of
a) a non-electrolyte b) a weak electrolyte c) a strong electrolyte
10. B Which expression represents the pH of a solution?
a) $\log[H^+]$ b) $-\log[H^+]$ c) $\log[OH^-]$ d) $-\log[OH^-]$
11. A If a solution has more Hydronium ions $[H^+]$ than Hydroxide ions $[OH^-]$, the solution will be:
a) an acid b) a base c) neutral d) might be an acid or base
12. A If a solution has more Hydroxide ions $[OH^-]$ than Hydronium ions $[H^+]$, the solution will have a pH:
a) greater than 7 b) less than 7 c) equal to 7
13. D An strong acid has a pH:
a) greater than 7 b) greater than 10 c) less than 7 d) less than 3
14. B An strong base has a pH:
a) greater than 7 b) greater than 10 c) less than 7 d) less than 3
15. D Pure water contains:
a) Hydronium ions $[H^+]$ only
b) Hydroxide ions $[OH^-]$ only
c) water molecules only
d) water molecules, Hydronium ions $[H^+]$ and Hydroxide ions $[OH^-]$

16. D A solution with a pH of 2 is how many times stronger than a solution with a pH of 6?
a) 4 times b) 40 times c) 4,000 times d) 10,000 times

Section B - Short Answer [1 point each]

Answer the questions below **in complete sentences**.

17. Compare the difference between a strong electrolyte and a weak electrolyte.

A STRONG ELECTROLYTE COMPLETELY PRODUCES IONS IN SOLUTION
WHILE A WEAK ELECTROLYTE PARTIALLY PRODUCES IONS.

18. Compare the difference between an electrolyte and a non-electrolyte.

AN ELECTROLYTE PRODUCES IONS IN SOLUTION
WHILE A NON-ELECTROLYTE PRODUCES NO IONS IN SOLUTIONS

19. Why does Gatorade advertise that they replace electrolytes in your body?

WHEN YOU SWEAT YOU LOSE SODIUM^{IONS} + POTASSIUM^{IONS}. GATORADE
INCLUDES THESE IONS IN IT'S DRINK TO REPLACE THOSE
IONS AND IN TURN KEEPS YOU HYDRATED.

20. What is the purpose of doing an acid/base titration?

THE PURPOSE OF ACID/BASE TITRATION IS TO DETERMINE
THE STRENGTH OF AN UNKNOWN BASE/ACID.